

What is claimed is:

1. A fluted filter media construction comprising:
  - (a) a corrugated sheet of filter media comprising a curved wave pattern of corrugations;
    - (i) a set of the corrugations defining individual flutes each having an end closure defined by a regular fold arrangement in a corresponding corrugation; the regular fold arrangement of each corrugation including at least four folds.
2. A fluted filter media construction according to claim 1 wherein:
  - (a) the corrugated sheet of filter media comprises a regular, curved, wave pattern of straight corrugations.
3. A fluted filter media construction according to either one of claims 1 and 2 including:
  - (a) a non-corrugated sheet of filter media secured to the corrugated sheet of filter media.
4. A fluted filter media construction according to claim 3 wherein:
  - (a) the corrugations have a flute/flat ratio within the range of 1.2 - 2.0, inclusive.
5. A fluted media construction according to claim 3 wherein:
  - (a) the corrugated sheet and non-corrugated sheet are positioned in a filter to define a set of inlet flutes and a set of outlet flutes extending between an inlet face and an outlet face;
    - (i) each inlet flute being closed to passage of unfiltered fluid therethrough, adjacent said outlet face; and
    - (ii) each outlet flute being closed, to passage of unfiltered fluid therein, adjacent said inlet face.

6. A fluted media construction according to claim 5 wherein:
  - (a) each inlet flute is closed, by the regular fold arrangement, adjacent the outlet face.
7. A fluted media construction according to any one of claims 5 and 6 wherein:
  - (a) each outlet flute is closed, by the regular fold arrangement, adjacent the inlet face.
8. A fluted media construction according to any one of claims 5-7 wherein:
  - (a) each regular fold arrangement includes a sealant material therein.
9. A fluted media construction according to any one of claims 3-5 wherein:
  - (a) the corrugated sheet and the non-corrugated sheet are jointly coiled into a coiled media structure.
10. A process of manufacturing a filter media construction including a sheet of corrugated filter media having a curved wave pattern of corrugations; said process including steps of:
  - (a) deforming a portion of a corrugation to define at least one foldable tip; and,
  - (b) folding the at least one foldable tip over, to fold the corrugation closed.
11. A process according to claim 10 wherein:
  - (a) the corrugation which is deformed by the deforming step 10(a) is a member of a regular curved wave pattern of corrugations.
12. A process according to any one of claims 10-11 wherein:
  - (a) prior to the step of deforming, the sheet of corrugated filter media is secured to a sheet of non-corrugated filter media to form a web of media.

13. A process according to any one of claims 10-12 wherein:
  - (a) said step of deforming is a mid-web indenting process conducted on corrugation ridges projecting away from the sheet of non-corrugated filter media;
  - (b) said step of folding comprises a mid-web folding process of folding the at least one foldable tip toward the sheet of non-corrugated filter media to form a mid-web fold line; and,
  - (c) the process includes a step of splitting the web of media along the mid-web fold line.
14. A process according to any one of claims 10-13 wherein:
  - (a) the step of deforming comprises center indenting to form two foldable tips; and,
  - (b) the step of folding comprises a step of folding the two foldable tips toward one another.
15. A process according to any one of claims 10-14 wherein:
  - (a) the step of deforming comprises indenting with an indenting wheel; and,
  - (b) the step of folding comprises pressing with a folding wheel.
16. A process according to any one of claims 10-15 wherein:
  - (a) said step of deforming includes indenting a selected corrugation that is supported, at a region longitudinally adjacent where deformation will occur, by a support arrangement including at least one of:
    - (i) an outside corrugation support; and
    - (ii) an inside corrugation support.
17. A process according to any one of claims 10-16 wherein:
  - (a) the step of deforming is conducted with an indenting roller having:
    - (i) an outer corrugated surface configured to provide outside support to a corrugation, during indenting; and,
    - (ii) a projectable/retractable indentation pin arrangement.

18. A process according to any one of claims 10-17 including steps of:
  - (a) forming the corrugated media by passing a web of non-corrugated media into a bite between a pair of corrugating rollers; and,
  - (b) applying sealant to the corrugated media by applying the sealant before the media is corrugated.